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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,852	12/01/2003	Patricia Ann Piers	52229	2156
7590 Abbott Medical Optics, Inc. 1700 E. St. Andrew Place Santa Ana, CA 92705			EXAMINER MATTHEWS, WILLIAM H	
			ART UNIT 3774	PAPER NUMBER
			MAIL DATE 01/12/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/724,852

Applicant(s)

PIERS ET AL.

Examiner

William H. Matthews (Howie)

Art Unit

3774

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10-24-09, 11-20-09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 216,219,220,222,225-228,233,236,238-244,246,250,253-255,257-263,265,266,269,270 and 273-277.

Continuation of Disposition of Claims: Claims rejected are 216,219,220,222,225-228,233,236,238-244,246,250,253-255,257-263,265,266,269,270 and 273-277.

Response to Arguments

1. Applicant's arguments with respect to claims 216,219-220,222,225-228,233,236,238-244,246,250,253-255,257-263, 265-266,269-270,273-277 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 216,219,220,222,225-226,228,233,238,239,241-244,246,250,253-255,258-260,262,263,265,266,269,270,273-277 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2-8,10-19,22, and 24-29 of copending Application No. 11/734,238 (as cited in Applicant's IDS of 11/20/09). The pending claims of the current application recite a multifocal diffractive lens having two surfaces comprising a negative spherical aberration to reduce or mitigate positive corneal aberrations. The claims of '238 recite

each of the same limitations and additionally require correction of chromatic aberrations. Thus the claims of '238 encompass the subject matter of the pending claims explicitly or inherently and the subject matter of the pending claims would have been obvious to one of ordinary skill in the art at the time of the invention because the subject matter of '852 is not mutually exclusive from '238.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 216,219,220,222,225-228,233,236,238-244,246,250,253-255,257-263,265,266,269, 270, and 273-277 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosoburd et al (US 5,760,871) in view of Piers US PUB 20020122153.

4. Kosoburd discloses a multifocal intraocular lens comprising diffractive and aspheric portions (see col. 6 lines 20-37, columns 15-16, and figures 4B-4C). The diffractive and aspheric portions may be on the posterior and/or anterior surface. As the portions may be on opposing sides and of equal distribution, the distribution of light would be 50:50 between the two. The limitations regarding the Zernike polynomials and the lens being characterized by conical equations appear inherently met because

the Zernike polynomials describe spherical aberrations which are reduced and figure 4C show a partially conical shape which may be described by such equations (claims 238,241-242,259,262-263).

5. Kosoburd fail to expressly disclose the lens comprising a negative spherical aberration to balance a positive spherical aberration produced by a cornea. Piers teach in paragraph 0008 that corneal spherical aberrations of adults are positive, and further teach reducing such aberrations by means of designing a lens according to mathematical models including terms of a conicoid or rotation, polynomials, or combinations thereof (para 0017). Table 1 show an 11th term of the 4th order relates to spherical aberration.

6. Thus it would have been obvious to one of ordinary skill in the art to modify the aspheric surface of Kosoburd to include a negative spherical aberration to compensate, eliminate, or reduce the naturally occurring positive spherical aberration created by the cornea, and to design the lens according to known mathematical models including conoid terms or polynomials representative of spherical aberration as taught by Piers. The motivation to combine being that using a mathematical model can more accurately correct or reduce aberrations.

7. Claims 216,219,220,222,225, 227-228, 233, 236,238-244, 246,250,253,255,257,259-263,265,266,269, 270 and 273-277 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lieberman (US 5,800,532) in view of Piers USPUB 20020122153.

8. With reference to Figure 7A Lieberman discloses a multifocal intraocular lens 34 comprising a first surface 58 and a second surface 50 wherein the first surface has a first shape and the second surface has a second shape. Furthermore, Lieberman discloses that the IOL (34) can be a toric (aspherical) shape (col. 8, lines 49-67) wherein portion 42 comprises a diffractive pattern (col. 8, lines 45-48) and provides an additional focus to the base focus of the lens (col. 7, lines 18-24) wherein the base focus is 18 diopters (col. 7, lines 50-53) and the additional focus may exceed the base focus by 3 or more diopters (col. 7 lines 45-50). Furthermore, Lieberman discloses an additional focus area which can be greater than 90 degrees, which would occupy more than 30% of the light distribution (col. 7, lines 35-46).

9. Lieberman fail to expressly disclose the aspheric shape comprising a negative spherical aberration although Lieberman do disclose at col. 8 line 49 to col. 9 line 21 that the aberrations are intended to be reduced.

10. Piers teach in paragraph 0008 that corneal spherical aberrations of adults are positive, and further teach reducing such aberrations by means of designing a lens according to mathematical models including terms of a conicoid or rotation, polynomials, or combinations thereof (para 0017). Table 1 show an 11th term of the 4th order relates to spherical aberration.

11. Thus it would have been obvious to one of ordinary skill in the art to modify the aspheric surface of Lieberman to include a negative spherical aberration to compensate, eliminate, or reduce the naturally occurring positive spherical aberration created by the cornea, and to design the lens according to known mathematical

models including conoid terms or polynomials representative of spherical aberration, as taught by Piers. The motivation to combine being that using a mathematical model can more accurately correct or reduce aberrations.

Conclusion

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 10-24-09 and 11-20-09 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Matthews (Howie) whose telephone number is 571-272-4753. The examiner can normally be reached on Monday-Friday 10-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Matthews/
Primary Examiner
Art Unit 3774